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NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	May 12	EXTEND option available in structure searching
NEWS 4	May 12	Polymer links for the POLYLINK command completed in REGISTRY
NEWS 5	May 27	New UPM (Update Code Maximum) field for more efficient patent SDIs in CAplus
NEWS 6	May 27	CAplus super roles and document types searchable in REGISTRY
NEWS 7	Jun 28	Additional enzyme-catalyzed reactions added to CASREACT
NEWS 8	Jun 28	ANTE, AQUALINE, BIOENG, CIVILENG, ENVIROENG, MECHENG, and WATER from CSA now available on STN(R)
NEWS 9	Jul 12	BEILSTEIN enhanced with new display and select options, resulting in a closer connection to BABS
NEWS 10	Jul 30	BEILSTEIN on STN workshop to be held August 24 in conjunction with the 228th ACS National Meeting
NEWS 11	AUG 02	IFIPAT/IFIUDB/IFICDB reloaded with new search and display fields
NEWS 12	AUG 02	CAplus and CA patent records enhanced with European and Japan Patent Office Classifications
NEWS 13	AUG 02	STN User Update to be held August 22 in conjunction with the 228th ACS National Meeting
NEWS 14	AUG 02	The Analysis Edition of STN Express with Discover! (Version 7.01 for Windows) now available
NEWS 15	AUG 04	Pricing for the Save Answers for SciFinder Wizard within STN Express with Discover! will change September 1, 2004
NEWS 16	AUG 27	BIOCOMMERCE: Changes and enhancements to content coverage
NEWS 17	AUG 27	BIOTECHABS/BIOTECHDS: Two new display fields added for legal status data from INPADOC
NEWS 18	SEP 01	INPADOC: New family current-awareness alert (SDI) available
NEWS 19	SEP 01	New pricing for the Save Answers for SciFinder Wizard within STN Express with Discover!
NEWS 20	SEP 01	New display format, HITSTR, available in WPIDS/WPINDEX/WPIX
NEWS 21	SEP 14	STN Patent Forum to be held October 13, 2004, in Iselin, NJ

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NEWS LOGIN	Welcome Banner and News Items
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FILE 'HOME' ENTERED AT 09:17:08 ON 16 SEP 2004

=> file agricola caplus biosis

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FULL ESTIMATED COST	0.42	0.42

FILE 'AGRICOLA' ENTERED AT 09:18:04 ON 16 SEP 2004

FILE 'CAPLUS' ENTERED AT 09:18:04 ON 16 SEP 2004
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FILE 'BIOSIS' ENTERED AT 09:18:04 ON 16 SEP 2004
Copyright (c) 2004 The Thomson Corporation.

=> s delta zein
L1 48 DELTA ZEIN

=> dup rem l1
PROCESSING COMPLETED FOR L1
L2 26 DUP REM L1 (22 DUPLICATES REMOVED)

=> d 1-10 ti

L2 ANSWER 1 OF 26 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI Matrix-assisted laser desorption ionization time-of-flight mass spectrometry analysis of zeins in mature maize kernels.

L2 ANSWER 2 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN
TI The accumulation of α-zein in transgenic tobacco endosperm is stabilized by co-expression of β-zein

L2 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
TI Co-ordinate expression of β- and δ-zeins in transgenic tobacco

L2 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2
TI Genetic engineering ruminal stable high methionine protein in the foliage of alfalfa

L2 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN
TI Expression of an 11 kDa methionine-rich **delta-zein** in transgenic soybean results in the formation of two types of novel protein bodies in transitional cells situated between the vascular tissue and storage parenchyma cells

L2 ANSWER 6 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3
TI Analysis of Zein by Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry

L2 ANSWER 7 OF 26 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 4
TI Allelic variation and differential expression of methionine-rich delta-zeins in maize inbred lines B73 and W23a1.

L2 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN
TI Expression of chimeric zein in transgenic plants for improving sulfur amino acid content

L2 ANSWER 9 OF 26 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 5
TI beta-Zein protein bodies sequester and protect the 18-kDa **delta-zein** protein from degradation.

L2 ANSWER 10 OF 26 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 6
TI Zein protein interactions, rather than the asymmetric distribution of zein mRNAs on endoplasmic reticulum membranes, influence protein body formation in maize endosperm.

=> d 3 ab

L2 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
AB Two classes of alc. soluble seed storage proteins found in the endosperm of maize contain unusually high levels of cysteine and methionine. These two proteins, the beta (β) and delta (δ) zeins, have been introduced into plants with the expectation of improving the sulfur nutritional content of various plants. Traditional methods of expressing multiple transgenes in plants include: (a) crossing transgenic plants which contain the genes of interest, (b) co-transforming the transgenes, and (c) successive retransformation. Coordinate expression of transgenes is not always successful with these traditional methods. We have coordinately expressed the β- and . **delta.-zein** proteins with the use of a synthetic self-hydrolyzing 2A peptide sequence utilized by a number of viruses [J. Gen. Virol. 82 (2001) 1013]. The β and δ zeins were fused with a 20 amino acid synthetic 2A peptide sequence between them. This β-zein-2A-. **delta.-zein** construct was introduced into tobacco. Western anal. indicates that tobacco plants containing this transgene accumulate both β- and . **delta.-zein** protein. The 2A peptide sequence cleaves correctly allowing the β- and . **delta.-zein** proteins to accumulate. Protein bodies are observed in these transgenic plants. This technol. allows two genes to be expressed in one cassette, under the control of the same promoter, eliminating the traditional need for crossing or co-transformation.

=> d 3 so

L2 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
SO Plant Science (Amsterdam, Netherlands) (2004), 167(2), 367-372
CODEN: PLSCE4; ISSN: 0168-9452

=> d 5 ab

L2 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN
AB Soybean (Glycine max (L.) Merr.) is an important protein source in human diets and animal feeds. The sulfur content of soybean seed proteins, however, is not optimal for ration formulations. Thus, increasing the methionine and cysteine content of soybean seed proteins would enhance the nutritional quality of this widely utilized legume. We have earlier reported the isolation of an 11 kDa .vdelta.-zein protein rich in methionine from the endosperm of the maize (Zea mays L.) inbred line W23a1

[Kim, W.-S. and Krishnan, H.B. (2003) Allelic variation and differential expression of methionine-rich-.vdelta.-zeins in maize inbred lines B73 and W23a1. Planta, 217, 66-74]. Using Agrobacterium-mediated transformation, a construct consisting of the coding region of the cloned .vdelta.-zein gene under regulation of the β-conglycinin α'-promoter was introduced into the soybean genome. The 11 kDa .vdelta.-zein gene was expressed in the seeds of transgenic soybeans, although low-level expression was also detected in the leaves. In situ hybridization indicated that the 11 kDa .vdelta.-zein mRNA was expressed predominantly in transitional cells located between the vascular tissue and storage parenchyma cells. Immunohistochem. of developing transgenic soybeans revealed that the accumulation of the 11 kDa .vdelta.-zein occurred primarily in these transitional cells. Expression of the 11 kDa .vdelta.-zein gene in transgenic soybean resulted in the formation of two endoplasmic reticulum-derived protein bodies that were designated as either spherical or complex. Immunocytochem. localization demonstrated that both the spherical and complex protein bodies accumulated the 11 kDa .vdelta.-zein. Although expression of the 11 kDa .vdelta.-zein gene elevated the methionine content of the alc.-soluble protein fraction 1.5-1.7-fold above that of the non-transgenic line, the overall methionine content of seed flour was not increased. Our results suggest that the confined expression of the 11 kDa .vdelta.-zein gene in transitional cells could be limiting the increase in methionine content in transgenic soybean seeds.

=> d 5 so

L2 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN
SO Plant Biotechnology Journal (2004), 2(3), 199-210
CODEN: PBJLAE; ISSN: 1467-7644

=> d 7 ab

L2 ANSWER 7 OF 26 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 4
AB The sulfur-amino-acid-rich delta-zeins of maize (Zea mays L.) are represented by 18-kDa and 10-kDa proteins. We have cloned a novel 11-kDa methionine-rich **delta-zein** from developing endosperm of the inbred line W23a1. The nucleotide sequence of this new **delta-zein** is identical to the published 10-kDa **delta-zein**, except for an insertion of 18 nucleotides between +316 and +333 bp from the translation start site. Antibodies raised against the recombinant 18-kDa **delta-zein** recognized both the 18-kDa and 10-kDa **delta-zein** from total seed protein extracts of different maize inbred lines. Western blot analysis revealed differences in the levels of the delta-zeins in different inbred lines and some of the inbred lines lacked either the 10-kDa or the 18-kDa delta-zeins. Northern blot analysis revealed temporal differences in the RNA transcript levels of the 11-kDa and 18-kDa delta-zeins between B73 and W23a1. Such differences were not evident on Western blot analysis where similar protein accumulation profiles were seen for both lines. Immunostaining of paraffin sections of developing maize endosperm with the 18-kDa **delta-zein** antibodies revealed specific labeling of protein bodies found in the first few starchy layers from the aleurone layer. Electron-microscopic observation of thin-sections of B73 and W23a1 endosperm cells confirmed the presence of recently discovered novel, vacuole-like structures in these inbred lines. Immunogold labeling studies revealed that the delta-zeins were localized in the endoplasmic-reticulum-derived protein bodies and showed no preferential gold particle labeling over either the light or

electron-dense material found in these protein bodies.

=> d 7 so

L2 ANSWER 7 OF 26 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 4
SO Planta, May 2003. Vol. 217 No. 1. p. 66-74
Publisher: Berlin ; New York : Springer-Verlag, 1925-
CODEN: PLANAB; ISSN: 0032-0935

=> d 11-20 ti

L2 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN
TI Increasing maize seed methionine by mRNA stability

L2 ANSWER 12 OF 26 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 7
TI Genomics analysis of genes expressed in maize endosperm identifies novel seed proteins and clarifies patterns of zein gene expression.

L2 ANSWER 13 OF 26 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI beta/**delta Zein** fusion proteins in transgenic tobacco.

L2 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN
TI Transgenic construct for high-level expression of high-methionine zein in corn seed unregulated by dzrl protein

L2 ANSWER 15 OF 26 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI Influence of the protein distribution of maize endosperm on ruminal starch degradability.

L2 ANSWER 16 OF 26 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI A modified 10 kD zein protein produces two morphologically distinct protein bodies in transgenic tobacco.

L2 ANSWER 17 OF 26 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 8
TI Surface localization of zein storage proteins in starch granules from maize endosperm: proteolytic removal by thermolysin and in vitro cross-linking of granule-associated polypeptides.

L2 ANSWER 18 OF 26 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 9
TI Expression of a sulfur-rich maize seed storage protein, **delta-zein**, in white clover (Trifolium repens) to improve forage quality.

L2 ANSWER 19 OF 26 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI Genetic engineering for ruminal stable high methionine protein in forage legumes.

L2 ANSWER 20 OF 26 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 10
TI Coexpression of the maize **delta-zein** and beta-zein genes results in stable accumulation of **delta-zein** in endoplasmic reticulum-derived protein bodies formed by beta-zein.

=> d 14 ab

L2 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN
AB The present invention provides novel DNA constructs encoding high methionine zein proteins, the expression of which is not neg. regulated by the dzrl regulatory protein. The constructs of the invention comprise a . **delta.-zein** coding region operably linked to a promoter and a 3' UTR which has been modified so as to be devoid of any binding sites for the dzrl regulatory protein. Preferably, the entire 3' UTR is replaced by a heterologous sequence that does not contain any dzrl binding sites. Transgenic corn plants comprising the DNA constructs of the invention are also provided. These plants consistently produce high methionine corn seeds.

=> d 14 so

L2 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN
SO PCT Int. Appl., 54 pp.
CODEN: PIXXD2

=> d 14 pi

L2 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000012681	A1	20000309	WO 1999-US20308	19990825
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9958089	A1	20000321	AU 1999-58089	19990825
	EP 1108009	A1	20010620	EP 1999-945499	19990825
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

=> d 21-26 ti

L2 ANSWER 21 OF 26 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI Targeted accumulation of the delta and beta zeins in novel protein bodies.

L2 ANSWER 22 OF 26 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 11
TI Determinants of the high-methionine trait in wild and exotic germplasm may

have escaped selection during early cultivation of maize.

L2 ANSWER 23 OF 26 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 12
TI Immunocytochemical localization of **delta-zein** in the protein bodies of maize endosperm cells.

L2 ANSWER 24 OF 26 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI IMMUNOCYTOCHEMICAL LOCALIZATION OF **DELTA ZEIN** IN THE PROTEIN BODIES OF MAIZE ENDOSPERM CELLS.

L2 ANSWER 25 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 13
TI Zein degradation in the endosperm of maize seeds during germination

L2 ANSWER 26 OF 26 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN
TI Analysis of zein by matrix-assisted laser desorption/ionization mass spectrometry.

=> s dzr1
L3 10 DZR1

=> dup rem l3
PROCESSING COMPLETED FOR L3
L4 4 DUP REM L3 (6 DUPLICATES REMOVED)

=> d 1-4 ti

L4 ANSWER 1 OF 4 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 1
TI Increasing maize seed methionine by mRNA stability.

L4 ANSWER 2 OF 4 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 2
TI RFLP mapping of the maize **dzr1** locus, which regulates methionine-rich 10 kDa zein accumulation.

L4 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
TI Genetic analysis of **dzr1**, a regulator of high-methionine zein expression in maize

L4 ANSWER 4 OF 4 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 3
TI Allele-specific parental imprinting of **dzr1**, a posttranscriptional regulator of zein accumulation.

=> s zein and untranslated region
L5 11 ZEIN AND UNTRANSLATED REGION

=> dup rem l5
PROCESSING COMPLETED FOR L5

L6 6 DUP REM L5 (5 DUPLICATES REMOVED)

=> d 1-6 ti

L6 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
TI Methods for regulating oleoyl coenzyme A desaturase levels in Arabidopsis thaliana for improved oil production in seeds

L6 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
TI Increasing maize seed methionine by mRNA stability

L6 ANSWER 3 OF 6 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 1
TI Opaque2 modifiers alter transcription of the 27-kDa gamma-**zein** genes in maize.

L6 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2
TI Algorithmic approach to high-throughput molecular screening for alpha interferon-resistant genotypes in hepatitis C patients

L6 ANSWER 5 OF 6 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 3
TI A functional splice site in the 5' **untranslated region** of a **zein** gene.

L6 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4
TI Translation efficiency of **zein** mRNA is reduced by hybrid formation between the 5'- and 3'-**untranslated region**

=> s zein and (untranslated region or utr)
L7 14 ZEIN AND (UNTRANSLATED REGION OR UTR)

=> dup rem l7
PROCESSING COMPLETED FOR L7
L8 8 DUP REM L7 (6 DUPLICATES REMOVED)

=> d 1-8 ti

L8 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
TI Methods for regulating oleoyl coenzyme A desaturase levels in Arabidopsis thaliana for improved oil production in seeds

L8 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
TI Increasing maize seed methionine by mRNA stability

L8 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
TI Transgenic construct for high-level expression of high-methionine **zein** in corn seed unregulated by dzrl protein

L8 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
TI Accumulation of maize γ- **zein** and γ- **zein**: KDEL to high levels in tobacco leaves and differential increase of BiP synthesis in transformants

L8 ANSWER 5 OF 8 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 2
TI Opaque2 modifiers alter transcription of the 27-kDa gamma-**zein**

genes in maize.

L8 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3
TI Algorithmic approach to high-throughput molecular screening for alpha interferon-resistant genotypes in hepatitis C patients

L8 ANSWER 7 OF 8 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 4
TI A functional splice site in the 5' **untranslated region** of a **zein** gene.

L8 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 5
TI Translation efficiency of **zein** mRNA is reduced by hybrid formation between the 5'- and 3'-**untranslated region**

=> s zein and transgenic
L9 201 ZEIN AND TRANSGENIC

=> s l9 and dzr1
L10 1 L9 AND DZR1

=> d ti

L10 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
TI Increasing maize seed methionine by mRNA stability

=> d pi

L10 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN

=> d so

L10 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
SO Plant Journal (2002), 30(4), 395-402
CODEN: PLJUED; ISSN: 0960-7412

=> s ((messing j?) or (messing, j?))/au
L11 329 ((MESSING J?) OR (MESSING, J?))/AU

=> s l11 and zein
L12 93 L11 AND ZEIN

=> s l12 and dzr1
L13 7 L12 AND DZR1

=> dup rem l7
PROCESSING COMPLETED FOR L7
L14 8 DUP REM L7 (6 DUPLICATES REMOVED)

=> dup rem l13
PROCESSING COMPLETED FOR L13
L15 3 DUP REM L13 (4 DUPLICATES REMOVED)

=> d 1-3 ti

L15 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
TI Increasing maize seed methionine by mRNA stability

L15 ANSWER 2 OF 3 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 1
TI RFLP mapping of the maize **dzr1** locus, which regulates methionine-rich 10 kDa **zein** accumulation.

L15 ANSWER 3 OF 3 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 2
TI Allele-specific parental imprinting of **dzr1**, a posttranscriptional regulator of **zein** accumulation.

=> d 3 so

L15 ANSWER 3 OF 3 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 2
SO Proceedings of the National Academy of Sciences of the United States of America, May 24, 1994. Vol. 91, No. 11. p. 4867-4871
Publisher: Washington, D.C. : National Academy of Sciences,
CODEN: PNASA6; ISSN: 0027-8424

=> d 3 ab

L15 ANSWER 3 OF 3 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 2
AB Parental imprinting describes the phenomenon of unequivalent gene function based on transmission from the female or male parent. We have discovered parental imprinting of an allele of the **dzr1** locus that posttranscriptionally regulates the accumulation of 10-kDa **zein** in the maize endosperm. The imprinted allele of MO17 inbred origin, **dzr1**+MO17, conditions low accumulation of the 10-kDa **zein** and is dominant when transmitted through the female but recessive when transmitted through the male. Analyzing endosperms with equal parental contributions of **dzr1**+MO17 ruled out the possibility that the unequivalent phenotype of **dzr1**+MO17 was due to parental dosage imbalance in the triploid endosperm. Second-generation studies show that the dominant or recessive phenotype of **dzr1**+MO17 is determined at every generation based on immediate parental origin with no grandparental effect.

=> s ((lai j?) or (lai, j?))/auy
'AUY' IS NOT A VALID FIELD CODE
'AUY' IS NOT A VALID FIELD CODE
'AUY' IS NOT A VALID FIELD CODE
L16 0 ((LAI J?) OR (LAI, J?))/AUY

=> s ((lai j?) or (lai, j?))/au
L17 2707 ((LAI J?) OR (LAI, J?))/AU

=> s l17 and zein
L18 2 L17 AND ZEIN

=> dup rem l18
PROCESSING COMPLETED FOR L18
L19 2 DUP REM L18 (0 DUPLICATES REMOVED)

```
=> d 1-2 ti

L19  ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Increasing maize seed methionine by mRNA stability

L19  ANSWER 2 OF 2  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Transgenic construct for high-level expression of high-methionine
     zein in corn seed unregulated by dzrl protein


=> d 2 so

L19  ANSWER 2 OF 2  CAPLUS  COPYRIGHT 2004 ACS on STN
SO   PCT Int. Appl., 54 pp.
     CODEN: PIXXD2


=> d 2 pi

L19  ANSWER 2 OF 2  CAPLUS  COPYRIGHT 2004 ACS on STN
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
PI   WO 2000012681        A1    20000309    WO 1999-US20308        19990825
         W:  AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
             CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
             IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
             MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
             SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
             ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
             CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 9958089            A1    20000321    AU 1999-58089          19990825
     EP 1108009            A1    20010620    EP 1999-945499         19990825
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
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